

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 Claim 1 (currently amended): For use in a router having a  
2 designated routing facility and a standby routing facility,  
3 a method for processing information related to routing, the  
4 method comprising:

- 5 a) executing, with the designated routing facility, a  
6 routing protocol to generate network topology  
7 information;
- 8 b) providing a copy of network state information  
9 received by the designated routing facility to the  
10 standby routing facility, wherein the act of providing  
a copy of network state information is performed  
regardless of a state of the network topology  
information generated by the designated routing  
facility; and
- 15 c) executing, with the standby routing facility, a  
16 routing protocol based on the network information  
17 provided by the designated routing facility, but such  
18 that signaling from the standby routing facility to  
19 external nodes is suppressed.

1 Claim 2 (original): The method of claim 1 wherein the  
2 routing protocol is the IS-IS protocol.

1 Claim 3 (original): The method of claim 1 wherein the  
2 routing protocol is a link state routing protocol.

1 Claim 4 (previously presented): For use in a router having  
2 a designated routing facility and a standby routing

3 facility, a method for processing information related to .  
4 routing, the method comprising:  
5 a) executing, with the designated routing facility, a  
6 routing protocol to generate network topology  
7 information;  
8 b) providing a copy of network topology information  
9 generated by, and/or network state information  
10 received by, the designated routing facility to the  
11 standby routing facility; and  
12 c) executing, with the standby routing facility, a  
13 routing protocol based on the network information  
14 provided by the designated routing facility, but such  
15 that signaling from the standby routing facility to  
16 external nodes is suppressed  
17 wherein the act or providing a copy of network  
18 topology information is effected by having the designated  
19 routing facility flood such information onto a local area  
20 network within the router.

1 Claim 5 (original): The method of claim 1 further  
2 comprising:  
3 d) if a failure of the designated routing facility is  
4 determined, then electing the standby routing facility  
5 as the designated routing facility.

1 Claim 6 (original): The method of claim 5 wherein the act  
2 of electing includes having the standby routing facility  
3 assume identification information of the failed designated  
4 routing facility.

1 Claim 7 (original): The method of claim 1 wherein the  
2 designated routing facility and the standby routing  
3 facility share a common forwarding facility.

1 Claim 8 (currently amended): A router comprising:  
2 a) a designated routing facility adapted for  
3 executing a routing protocol to generate network  
4 topology information; and  
5 b) a standby routing facility, the standby routing  
6 facility adapted for  
7 i) accepting a copy of network state information  
8 received by the designated routing facility; and  
9 ii) executing a routing protocol based on the  
10 network information provided by the designated  
11 routing facility to generate network topology  
12 information, but such that signaling from the  
13 standby routing facility to external nodes is  
14 suppressed.

Claim 9 (canceled)

1 Claim 10 (original): A machine-readable medium having  
2 machine readable instructions stored thereon which, when  
3 executed by a machine, effect the method of claim 1.

1 Claim 11 (currently amended): For use in a router having,  
2 at a given time, a currently designated routing facility  
3 and a current standby routing facility, a method  
4 comprising:  
5 a) informing an external node that the router has  
6 redundant routing facilities;

7       b) informing an external node of the identify of the  
8       currently designated routing facility;  
9       c) providing, with the currently designated routing  
10      facility when it is in a state of being the designated  
11      routing facility, network information to the external  
12      node; and  
13      d) providing, with the current standby routing  
14      facility when it is in a state of being the standby  
15      routing facility, network information to the external  
16      node.

1       Claim 12 (previously presented): The method of claim 11  
2       wherein the currently designated routing facility and  
3       current standby routing facility share a common forwarding  
4       facility.

1       Claim 13 (previously presented): The method of claim 11  
2       wherein the act of informing an external node that the  
3       router has redundant routing facilities includes generating  
4       and transmitting a message including an identification of  
5       the router, address information of the currently designated  
6       routing facility, and address information of the current  
7       standby routing facility.

1       Claim 14 (original): The method of claim 11 wherein the  
2       act of informing an external node that the router has  
3       redundant routing facilities uses an existing BGP message  
4       format.

1       Claim 15 (previously presented): The method of claim 11  
2       further comprising:

3           e) if a failure of the currently designated routing  
4           facility is determined, then  
5              i) electing the current standby routing facility  
6              as a new designated routing facility, and  
7              ii) informing the external node of the identify  
8              of the newly elected new designated routing  
9              facility.

1   Claim 16 (currently amended): A router comprising:  
2      a) a currently designated routing facility;  
3      b) a current standby routing facility; and  
4      c) a signaling facility adapted for  
5           i) informing an external node that the router  
6           has redundant routing facilities, and  
7           ii) informing the external node of the identify  
8           of the currently designated routing facility,  
9           wherein the currently designated routing facility is  
10          adapted to provide, when it is in a state of being the  
11          designated routing facility, network information to the  
12          external node, and  
13           wherein the current standby routing facility is  
14          adapted to provide, when it is in a state of being the  
15          standby routing facility, network information to the  
16          external node.

1   Claim 17 (previously presented): The router of claim 16  
2   wherein the currently designated routing facility has a  
3   first internet address and the current standby routing  
4   facility has a second internet address.

1   Claim 18 (currently amended): A network having at least  
2   two routers, each of the at least two routers comprising:

3 a) a currently designated routing facility;  
4 b) a current standby routing facility; and  
5 c) a signaling facility adapted for  
6 i) informing an external node that the router  
7 has redundant routing facilities, and  
8 ii) informing the external node of the identify  
9 of the currently designated routing facility,  
10 wherein the currently designated routing facility is  
11 adapted to provide, when it is in a state of being the  
12 designated routing facility, network information to the  
13 external node, and  
14 wherein the current standby routing facility is  
15 adapted to provide, when it is in a state of being the  
16 standby routing facility, network information to the  
17 external node.

1 Claim 19 (original): A machine-readable medium having  
2 machine readable instructions stored thereon which, when  
3 executed by a machine, effect the method of claim 11.

1 Claim 20 (currently amended): For use in a router adapted  
2 to interact with an external router having, at a given  
3 time, a currently designated routing facility and a current  
4 standby routing facility, a method comprising:  
5 a) accepting, from the external router, the identify  
6 of the currently designated routing facility;  
7 b) accepting, from the currently designated routing  
8 facility of the external router when it is in a state  
9 of being the designated routing facility, network  
10 information;

11       c) using the network information accepted from the  
12       currently designated routing facility of the external  
13       router for determining routes; and  
14       d) accepting, from the current standby routing  
15       facility of the external router when it is in a state  
16       of being the standby routing facility, network  
17       information, but not using it for determining routes.

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1       Claim 21 (previously presented): The method of claim 20  
2       further comprising:

3       e) storing the network information accepted from the  
4       current standby routing facility of the external  
5       router.

1       Claim 22 (previously presented): The method of claim 20  
2       further comprising:

3       e) accepting, from the external router, an indication  
4       that the currently designated routing facility has  
5       failed;  
6       f) accepting, from the external router, an indication  
7       that the formerly current standby routing facility has  
8       been elected as a new designated routing facility; and  
9       g) using path information from the newly elected new  
10      designated routing facility.

1       Claim 23 (previously presented): The method of claim 21  
2       further comprising:

3       f) accepting, from the external router, an indication  
4       that the currently designated routing facility has  
5       failed;

6 g) accepting, from the external router, an indication  
7 that the formerly current standby routing facility has  
8 been elected as a new designated routing facility; and  
9 h) using the stored path information from the  
10 formerly current standby routing facility that is now  
11 the newly elected new designated routing facility.

1 Claim 24 (currently amended): A router adapted to interact  
2 with an external router having, at a given time a currently  
3 designated routing facility and a current standby routing  
4 facility, the router comprising:

5 a) an input for  
6 i) accepting, from the external router, the  
7 identify of the currently designated routing  
8 facility, and  
9 ii) accepting, from the currently designated  
10 routing facility of the external router when it  
11 is in a state of being the designated routing  
12 facility, network information; and  
13 b) a routing facility for  
14 i) using the network information accepted from  
15 the currently designated routing facility of the  
16 external router for determining routes, and  
17 ii) accepting, from the current standby routing  
18 facility of the external router when it is in a  
19 state of being the standby routing facility,  
20 network information, but not using it for  
21 determining routes.

1 Claim 25 (previously presented): The router of claim 24  
2 further comprising:

3       c) a storage device for storing the network  
4       information accepted from the current standby routing  
5       facility of the external router.

1       Claim 26 (previously presented): The router of claim 24  
2       wherein the input is further adapted for  
3                iii) accepting, from the external router, an  
4                indication that the currently designated routing  
5                facility has failed, and  
6                iv) accepting, from the external router, an  
7                indication that the formerly current standby  
8                routing facility has been elected as a new  
9                designated routing facility, and  
10               wherein the routing facility is further adapted to use  
11               path information from the newly elected new designated  
12               routing facility when the input accepts the indication that  
13               the formerly current standby routing facility has been  
14               elected as the new designated routing facility.

1       Claim 27 (previously presented): The method of claim 25  
2       wherein the input is further adapted for  
3                iii) accepting, from the external router, an  
4                indication that the currently designated routing  
5                facility has failed, and  
6                iv) accepting, from the external router, an  
7                indication that the formerly current standby  
8                routing facility has been elected as the a new  
9                designated routing facility, and  
10               wherein the routing facility is further adapted to use  
11               the stored path information from the formerly current  
12               standby routing facility if it is newly elected as the new  
13               designated routing facility.

1 Claim 28 (original): A machine-readable medium having  
2 machine readable instructions stored thereon which, when  
3 executed by a machine, effect the method of claim 20.

1 Claim 29 (previously presented): The router of claim 8  
2 further comprising:

3 c) means for electing the standby routing facility as  
4 a new designated routing facility if a failure of the  
5 designated routing facility is determined.

1 Claim 30 (previously presented): The router of claim 16  
2 further comprising:

3 d) means for electing the current standby routing  
4 facility as a new designated routing facility if a  
5 failure of the currently designated routing facility  
6 is determined; and  
7 e) means for informing the external node of the  
8 identify of the newly elected new designated routing  
9 facility.